

CLAIMS

1. An alarm system for an aircraft door comprising;
a sensor for sensing when the door operating handle is about to be gripped by an operator,
an aural alarm associated with the sensor and operable to sound when the sensor detects that the handle is about to be gripped, and
means for arming the sensor and/or aural alarm when the aircraft door is armed.
2. An alarm system as claimed in claim 1, wherein the aural alarm and the means for arming the sensor and/or activating the aural alarm are embodied in the aircraft door.
3. An alarm system as claimed in claim 1 or claim 2 wherein the sensor is incorporated in, or located on, the door operating handle.
4. An alarm system as claimed in claim 1 or claim 2, wherein the sensor is incorporated into, or otherwise located on, the aircraft door within the immediate vicinity of the door operating handle.
5. An alarm system as claimed in claim 1 which is embodied in a door operating handle for an aircraft door.
6. An alarm system as claimed in any one of claims 1 to 5 wherein the sensor comprises a pressure sensor.
7. An alarm system as claimed in any one of claims 1 to 5 wherein the sensor is a light sensor.

8. An alarm system as claimed in any preceding claim wherein the aural alarm is electrically operated.
9. An alarm system as claimed in claim 8 wherein the aural alarm sounds one or more tones.
10. An alarm system as claimed in claim 9 wherein the aural alarm sounds a repeating sequence of tones.
11. An alarm system as claimed in claim 8 wherein the alarm sounds a pre-recorded voice message in one or more languages.
12. An alarm system as claimed in any preceding claim wherein the means for arming the sensor and/or aural alarm are automatic.
13. An alarm system as claimed in claim 12 wherein the arming means is mechanically, electrically, optically or magnetically couplable to an existing means for arming an aircraft door or an existing visual indicator for indicating the status of the aircraft door.
14. An alarm system as claimed in claim 13 wherein the arming means includes a sensor which is activated following a change in the status of the door.
15. An alarm system as claimed in claim 14 wherein the arming means sensor is a light sensor obscurable by an operating switch or handle for arming the door when the position of the switch or handle is changed.
16. An alarm system as claimed in claim 14 wherein the arming means includes a magnetically sensitive switch which is responsive to a magnetic field which changes when an aircraft door to which it is

attachable is switched between an armed and an unarmed configuration.

17. An alarm system as claimed in claim 16 wherein the changing magnetic field is associated with a slide placard of an aircraft door to which the alarm system is attachable.
18. An alarm system as claimed in any preceding claim including its own power source.
19. An alarm system as claimed in claim 18 wherein the power source is a dry cell.
20. An alarm system as claimed in any of claims 1 to 17 wherein the alarm system is configured to tap power from an existing power supply of an aircraft door or aircraft to which it is attachable.
21. An alarm system as claimed in any of the preceding claims wherein the alarm system includes its own indicator that the system has been armed.
22. An alarm system as claimed in claim 21 wherein the arming system indicator is a light emitting diode which lights or pulses when the system is armed and ceases when the system is not armed.
23. An alarm system as claimed in any preceding claim wherein the system is hard wired.
24. An alarm system as claimed in any of claims 1 to 22 wherein the system includes one or more wireless connections between various of its components and/or existing components of an aircraft door to which it may be attached.

25. An alarm system as claimed in claim 24 wherein a blue tooth link is provided between the sensor and alarm or between the means for arming the sensor and the sensor.
26. An operating handle for an aircraft door incorporating the alarm system of any preceding claim.
27. An operating handle as claimed in claim 26 wherein the handle is substantially C shaped in cross section and one or more of the components of the alarm system are mounted in the C of the C shaped cross section.
28. An aircraft door incorporating an operating handle as claimed in claim 26 or claim 27.

AMENDED CLAIMS

[received by the International Bureau on 05 July 2005 (05.07.05);
original claim 1 amended; ; original claim 12 cancelled;
claims 13-28 renumbered as claims 12-27; remaining claims unchanged (4 pages)]

1. An alarm system for an aircraft door comprising;
a sensor for sensing when the door operating handle is about to be gripped by an operator,
an aural alarm associated with the sensor and operable to sound when the sensor detects that the handle is about to be gripped, and
means for automatically arming the sensor and/or aural alarm when the emergency evacuation slide of the aircraft door is armed so as to be released if the air craft door is opened.
2. An alarm system as claimed in claim 1, wherein the aural alarm and the means for arming the sensor and/or activating the aural alarm are embodied in the aircraft door.
3. An alarm system as claimed in claim 1 or claim 2 wherein the sensor is incorporated in, or located on, the door operating handle.
4. An alarm system as claimed in claim 1 or claim 2, wherein the sensor is incorporated into, or otherwise located on, the aircraft door within the immediate vicinity of the door operating handle.
5. An alarm system as claimed in claim 1 which is embodied in a door operating handle for an aircraft door.
6. An alarm system as claimed in any one of claims 1 to 5 wherein the sensor comprises a pressure sensor.
7. An alarm system as claimed in any one of claims 1 to 5 wherein the sensor is a light sensor.

8. An alarm system as claimed in any preceding claim wherein the aural alarm is electrically operated.
9. An alarm system as claimed in claim 8 wherein the aural alarm sounds one or more tones.
10. An alarm system as claimed in claim 9 wherein the aural alarm sounds a repeating sequence of tones.
11. An alarm system as claimed in claim 8 wherein the alarm sounds a pre-recorded voice message in one or more languages.
12. An alarm system as claimed in claim 1 wherein the arming means is mechanically, electrically, optically or magnetically couplable to an existing means for arming an aircraft door or an existing visual indicator for indicating the status of the aircraft door.
13. An alarm system as claimed in claim 12 wherein the arming means includes a sensor which is activated following a change in the status of the door.
14. An alarm system as claimed in claim 13 wherein the arming means sensor is a light sensor obscurable by an operating switch or handle for arming the door when the position of the switch or handle is changed.
15. An alarm system as claimed in claim 13 wherein the arming means includes a magnetically sensitive switch which is responsive to a magnetic field which changes when an aircraft door to which it is attachable is switched between an armed and an unarmed configuration.

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16. An alarm system as claimed in claim 15 wherein the changing magnetic field is associated with a slide placard of an aircraft door to which the alarm system is attachable.
17. An alarm system as claimed in any preceding claim including its own power source.
18. An alarm system as claimed in claim 17 wherein the power source is a dry cell.
19. An alarm system as claimed in any of claims 1 to 16 wherein the alarm system is configured to tap power from an existing power supply of an aircraft door or aircraft to which it is attachable.
20. An alarm system as claimed in any of the preceding claims wherein the alarm system includes its own indicator that the system has been armed.
21. An alarm system as claimed in claim 20 wherein the arming system indicator is a light emitting diode which lights or pulses when the system is armed and ceases when the system is not armed.
22. An alarm system as claimed in any preceding claim wherein the system is hard wired.
23. An alarm system as claimed in any of claims 1 to 21 wherein the system includes one or more wireless connections between various of its components and/or existing components of an aircraft door to which it may be attached.

24. An alarm system as claimed in claim 23 wherein a blue tooth link is provided between the sensor and alarm or between the means for arming the sensor and the sensor.
25. An operating handle for an aircraft door incorporating the alarm system of any preceding claim.
26. An operating handle as claimed in claim 25 wherein the handle is substantially C shaped in cross section and one or more of the components of the alarm system are mounted in the C of the C shaped cross section.
27. An aircraft door incorporating an operating handle as claimed in claim 25 or claim 26.